THE SURFACE FUNCTIONALIZATION OF HUMAN CELLS

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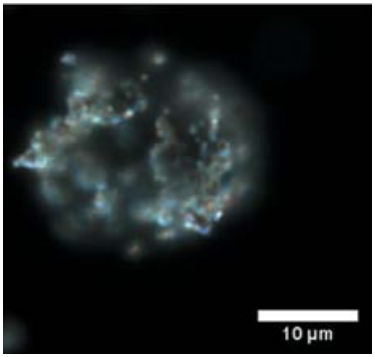

Figure 1. The cells of A549 covered by AgPAH.

The surface functionalization of human lung carcinoma cells (A549) via silver na noparticles stabilized by polyallylamine hydrochloride (PAH) was carried out (Fig.1). Temporal and dose-related effects on cells, as well as the impact of functionalization by nanomaterials on cells viability, and the formation of a monolayer, and proliferative activity are studied. No-Effect concentration of silver nanoparticles stabilized by poly-allylamine hydrochloride for the A549 was found. The differential effects of silver Ag-PAH on cell function and organelles were revealed. The cytotoxicity of AgPAH was determined using the MTT, rezasurin assay and neutral red tests well done. Based on the research findings it was determined that the AgPAH nanoparticles are able to exert a cytotoxic effect on the human lung carcinoma cells (A549). Modification of cells using AgPAH through the 13.1 - 105 mg / ml concentration range affects on the ability of functionalized cells to grow and divide. Apparently, safe concentration for the A549 is AgPAH - 0,8 mg / ml.

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